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DECEMBER, 1907

No. 3

U. S. Department of Agriculture

# The Agricultural Student

SPECIAL WINTER  
COURSE NUMBER



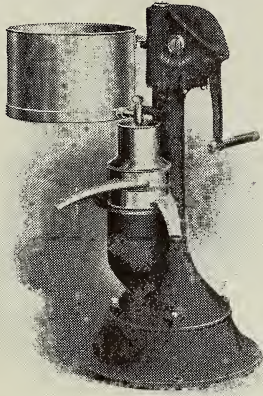
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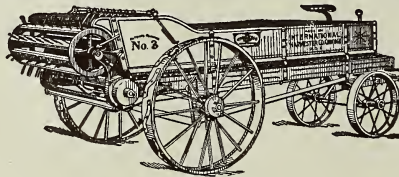
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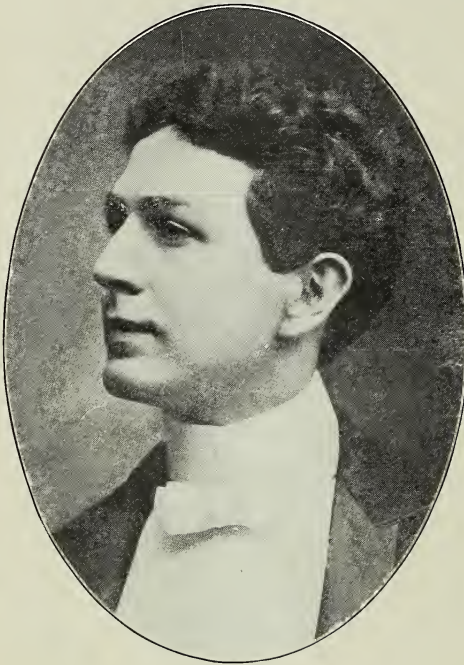
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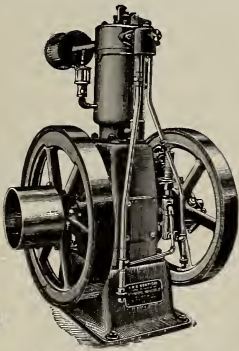
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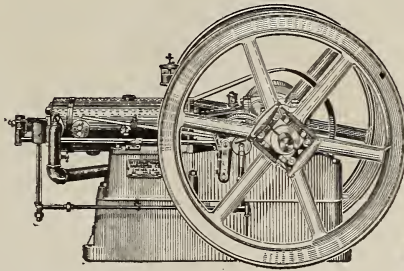


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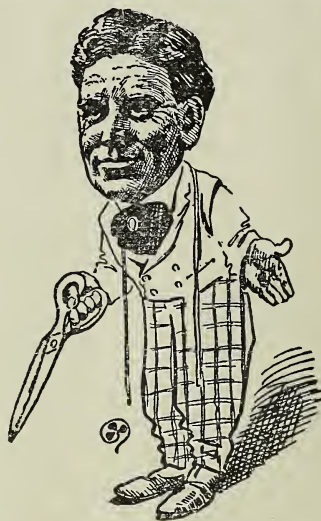
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# THE AGRICULTURAL STUDENT.

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VOL. XIV. OHIO STATE UNIVERSITY, COLUMBUS, DECEMBER, 1907

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No. 3

## A FEW REMARKS BY PRESIDENT THOMPSON

The winter course was a gratifying success last year and promises to do much for the practical benefit of young farmers who for one reason or another have not been able to take advantages of the more lengthened courses of study. The aim of the course is, of course, to produce better results in farming and to awaken the young men of the state to the fact that applied intelligence in the matter of farming will bring a good return. Here in Ohio we cannot be blind to the fact that the competition with the great grain fields of the west makes it necessary to look carefully after the margin of profit in all the farm enterprises. Agricultural education is not indifferent to the importance of culture in education nor is it indifferent to the fact that unless it can show a better and more profitable method of farming there would not be a sufficient reason for the expenditure of money in such forms of education. The problem of agricultural education is therefore two-fold; to produce better results in farming and to inspire educated men and women with a love for the farm as offering an attractive home and a sufficient career to meet the desires of good people. There must be an intellectual outlook in farming if people are to be happy in it. This is the serious trouble in many of our shops. Men work at single pieces of work, becoming expert,

but with no prospects ahead, either intellectual, financial or social. Discontent is the natural result. When farming drops to the same level of monotonous routine with small profits and meager results socially or intellectually the rumblings of discontent will be heard on every hand. Education that brings intelligence, better life, greater certainty in production and opens up before the farmer an attractive career will justify the expenditure of money in equipping schools and colleges. It will appeal to the farms and farmers in their time and patronage.

The winter term offered now for the second time is an earnest effort on the part of the College of Agriculture to meet a recognized need. It is hoped that many of our younger farmers may be able to spend the time between corn husking and spring plowing in a study of agricultural problems and experiences at the college. The management will keep an open eye toward the situation and will attempt from year to year to make such changes and additions in the work as will satisfy all reasonable desires. The University desires to make all its facilities available for those who will use them. It is for the farmer to say how extensive that use may be. In this course the motto is, "None too old to learn." It will bring to men in middle life valuable help if they will avail themselves of it.



## THE WINTER COURSE AN AID TO FUTURE STUDY

*Chas. E. Thorne.*

Director Ohio Experiment Station.

There are thousands of young men on the farms of Ohio who urgently feel the need of a better knowledge of the service which modern science has rendered and is rendering to agriculture than they now possess, but who are so circumstanced that they cannot afford the time nor the money necessary to the completion of a course in college.

Many such young men might accomplish much in this direction by reading and study at home, but do not know just where to begin nor how to work to the best advantage.

To such persons the winter course of the College of Agriculture offers the opportunity to become acquainted with trained teachers in agriculture, and from them to get suggestions as to choice of books and methods of study which may be of very great assistance in further pursuit of knowledge.

It is difficult to place too high an estimate upon a college education, but after all the chief value of such an education lies, not in the facts with which the student may store his mind, but in

teaching him where and how to search for facts, and training him in the co-ordination and logical use of his knowledge.

Of course the few weeks' training offered by the winter course cannot be compared with that to be obtained by attendance on the longer courses; but the greater maturity of the young men who will take this short course, and their more definite idea of the help which they need, will enable them to obtain much more benefit from it than would be possible to younger students.

The younger men who attend this course, however, may find in it the answer to the question whether they are qualified to profit by the training of the college, and some will receive from it a stimulus which will impel them to continue in college. For in the college above all places it is true that "where there is a will there is a way," and multitudes of men who have made and are making the brightest records in the world's work are men who have made their way through college without any help.





Townshend Hall.

## THE WINTER COURSE AND THE FARMER

*H. C. Price.*

Dean of the Agricultural College.

While the faculty of the College of Agriculture felt well pleased with the number and the class of students that enrolled in the winter course last year, they believe that last year's work was only a beginning of what will be accomplished through this course. Ohio has 275,000 farms with an average size of  $72\frac{1}{2}$  acres. Counting that each farmer in the state begins the active management of a farm at 20 years of age and continues until he is 60, or in other words, that he serves for 40 years as the active manager of a farm, which, of course, is far in excess of the actual average length of service of the farmer of the state, it means that 6875 men begin farming each year. Where are these men to be trained for their life's work if not in one of the courses of study offered in the Agricultural College. There are 1375 townships in the state and it seems that there should be found one farmer to a township at least that would arrange to take a course in agriculture during the winter.

Agricultural education is only in its infancy and the farmers of the state are just awakening to the fact that they

must educate themselves and their children along agricultural lines if they keep the farms they have and their children stay on them after they are gone. The winter course will be expanded and the instructors increased to meet the demands of the farmers of the state. What is made out of the winter course rests with the farmers; if they patronize it and encourage other to do so, the University will do all in its power to take care of all who come. If more should come than can be cared for with the present equipment the legislature would gladly make provision for all who want to come. Because it is an education that pays in dollars and cents, it is training the farmers of the state to produce more on their farms, to grow two blades of grass where one grew before, to grow five tons of alfalfa on an acre instead of two tons of timothy, to grow seventy-five bushels of corn to the acre instead of fifty.

The greatest agricultural resource of Ohio is her farmers and the least developed agricultural resource is their brains. They have been taught everything else in the schools but agriculture,

and the winter course offers them an opportunity to go to school and study nothing else but agriculture. The day has passed when the strongest man is necessarily the best and most successful farmer. Today success demands that the farmer shall know his business, and that he shall be a student and keep up with the times. New methods have superceded old and new farmers will supercede old farmers if the old farmer does not study his business and keep up with the times.

Since last winter three beautiful brick buildings have been built for the College of Agriculture and will be ready for use at the opening of the winter course. These buildings are a stock judging pavillion for the student work in stock judging and with a seating capacity of 400, a cattle building with accommodations for 100 head of cattle and a horse building with accommodations for 40 head of horses. The buildings will relieve the crowded condition of the class

rooms last year and will be greatly appreciated both by the students and faculty.

Many of the students that were in last year's course have signified their intention of returning again this year and bringing other students with them and to those that have not been students in the course it need only be said that this course offers you an opportunity to study the very subject with which you are dealing every day, an opportunity to meet and get acquainted with the leaders of agricultural thought in the state, an opportunity to meet and mingle with and be inspired by the best and most progressive young farmers of the state who make up the list of students that enroll in the course. For the faithful, industrious young farmer that wants to make the most of himself the weeks spent in the winter course will be the most profitable weeks he has ever spent and will always be looked back upon as one of the most enjoyable periods of his life.



University Herd.



## WHY DO NOT FARMS PAY?

*Joseph E. Wing.*

Some farms pay, more do not. It is almost sure that as a business proposition farming is rarely profitable. Regarding the farm as a home, and a place to bring up children, it may be shown to be nearly always profitable. At least it would be profitable if its advantages were taken and realized. But regarding the farm apart from all sentiment, as a purely dollars and cents proposition, it does not often pay. Why is this?

First, let us consider for a moment the "average farmer." He grows in Ohio 34 bushels of corn to the acre. At an "average" price of 30 cents per bushel that brings him about \$10.00 per acre. "A fine profit," the "average farmer" declares, enthusiastically. Then he is satisfied and later wonders why it is that he does not get ahead. Let's see what he has done. To plow an acre of land his horses must walk about 2560 rods. Maybe more than that, but at least that far. To harrow that land slightly, 820 rods. To drag, 320 rods. To plant, say, 400 rods. To cultivate five times 400 rods. Footing up we find that to grow his acre of corn, with 34 average bushels he has made his team travel about 7100 rods. The chances are that the actual distance will be greater than this, rather than less. This is a little more than 22 miles of team travel to grow an acre of corn. To grow a bushel, then, the team must travel .647 of a mile. Now the factor of cost of operating a team must be considered; it varies, of course, but one cannot hire teams for less than \$2.50 per day, and a team will walk about 20 miles a day in farm labor. That makes the team cost per mile 12½ cents. So to grow that bushel of corn has cost on team

work 8 cents. To husk it now costs from 4 cents up. To haul it to market at least 2 cents. So here we have a cost of 14 cents per bushel to produce and market a bushel of corn. But that apparently leaves 16 cents per bushel as pure profit. Let's see about that. The land is valued at, let us say, \$50.00 per acre. Really there is hardly any land capable of growing 34 bushels of corn per acre that can be bought for that sum, but put it at that sum. Eight per cent. interest on \$50 is \$4.00 per acre, or 14 cents per bushel more. That brings the cost of producing the bushel of corn up to 28 cents. And when you remember that not all the farm can grow corn and that back of the man who grows 34 bushels per acre there must be an army of men who grow less than that, it is plain to be seen that the "average farmer" is not making money growing corn.

Now what is wrong? We need here a man like the "business experts" who analyze and correct the operations of large merchants and manufacturers. Can't we make that bushel of corn more profitably? Let's see what we can do. It is plain that the land must be plowed, must be harrowed, must be dragged, cultivated, planted and all that. We can't economize in team labor. Maybe it would pay better to spend more team labor, to better cultivate and better conserve moisture.

Where, then, can we save? We must cheapen production, that is plain. In the Chicago stock yards the great packers decrease the cost of killing beef by making the work of the men go further. They increase the efficiency of the men by hiring experts to lead them and thus

they get incredible amounts of work done at the minimum cost. But we can't overwork our teams; no, we are on the wrong track. How are we going to produce more corn than a little above a half bushel for a mile of team work? Why, we must make the land more fertile! That will do it and the only thing that will do it unless better seed will help. We'll come to seed later. Let's count the land first. Land that won't produce more than 34 bushels of corn to the acre has been starved. Let's feed it. How? Already the farmer tells me he puts out his manure. Let's suppose me to be the expert, and the farmer docile and willing to obey me. I sternly question, "Sir, where is your manure?"

"Well, I don't make much. I feed hogs out there where you see the jimpsion weeds and don't get any manure to haul out from them. I have a lot in the yard ready to haul out after harvest."

"But my dear sir, that won't do. I can't allow you to do that. Why, the Ohio Station shows us that only 40 per cent. of the worth of that manure is left after it has lain out in the rain all summer."

"But my dear sir, that won't do. I have not time to haul it out in the spring."

"We'll see about that. How many loads could you haul in a day with a good spreader?"

"About twenty, with a man to help."

"Well, say that a load is worth \$3.00, a moderate enough price. Then you could get out \$60.00 worth in a day. But when that has lost 60 per cent. by the summer's leaching you have left only \$24.00 worth in the fall. So you have lost there \$36.00 in one day by your carelessness in not hauling out your manure. Why could you not have hired help to do this and have made a great profit on their labor? Great manufac-

turers make it a practice to hire every man who will yield them a profit. You must do the same. My dear Mr. Average, you must increase the fertility of your land before I can reduce much the team cost of growing your corn. If you make that soil right you will get 68 bushels per acre with the same labor, thus when your team has walked a mile it will have produced you more than three bushels of corn, while now it produces you only one and one-half bushels per mile. Let's look at it in a different way. Say your team walks its mile in 25 minutes, about what it averages. Then with the crop of 68 bushels you produce 8 lbs. of corn every minute, while with the crop of 34 bushels your old "average" crop, you produce only 4 lbs. of corn in a minute of team work. Now just think a little of what a trifling thing you are doing, you "average" man! Just take out your watch some day when you are plowing, planting or cultivating corn, and say, after a minute has elapsed, and you have walked a weary way, "well, anyway, I have made 4 lbs. of corn grow." If only you will get to considering the matter in this way I know well that you will at once begin to try to double the efficiency of your teams by doubling the efficiency of your soil.

But this not all; it is only the beginning of economics. Manures as they come from the yard are poor in phosphorus. They need reinforcement. We can buy cheap, raw phosphates and dose our stable manures and make an immense profit in the operation, and still further increase the efficiency of our land and thus the efficiency of our team work. We can grow clovers and alfalfa and thus mightily enrich our lands, and this will greatly decrease the team cost of growing that bushel of corn. On Woodland farm this year of 1907 there were grown on alfalfa sod more than 250



The Spring.

bushels of corn on two acres of land. That was more than six bushels of corn for each mile traveled. That is almost 16 lbs. of corn every minute. That is a pound made every 4 seconds. Think how that sound would gladden a man, if he could see the ears dropping as he walked, a one-half pound ear every two seconds instead of an ear every eight seconds, as the "average" farmer sees. Don't you recognize the advantage in that we have in possessing this good soil? And very largely it is good because we have made it good, with manures and clover and alfalfa.

But this is not all. If I am to be your expert I must search yet deeper into the causes of the "average" yield. It is hardly possible that you should not have more than a yield of 34 bushels if you have a stand of 144 hills to a shock, three stalks to a hill. It is hard, if you have a nubbin to each stalk, to avoid having 60 to 75 bushels to the acre. When I go through your field I do not find that you have a stand. I find ten per cent. missing,

and from that up to fifty per cent. The corn plants are simply not there. You are running your corn factory with half the machines taken out. That is an unpardonable waste of power and time. I can't permit that for a minute. How will you prevent that? Why by testing every ear before you plant it. Can't afford the time and expense? Nonsense. Twelve ears plant an acre. One hundred ears can be tested with three hours of labor, worth 37 cents. It costs less than 5 cents to test and make sure of seed enough to plant an acre. We can't afford to run the factory unless every machine is there and every machine given enough power (from fertile soil) and every machine working at its full efficiency from good cultivation and every machine well lubricated (by conserving soil moisture). If we will simply do these little, easy things the farm will pay. If the manufacturer forgets things as easy as these he is in bankruptcy courts sooner than you can say "Jack Robinson."



## A LITTLE EDUCATION, CONSIDERABLE INFORMATION, AND A LOT OF INSPIRATION

A. M. Beem.

I am proud to say that I am one of the 134 who formed the first ten weeks course in agriculture at Ohio State University; that I found it so valuable and interesting I did not miss a class I could possibly attend.

I understand that hundreds of extra copies of THE STUDENT will be sent to all quarters of the state as an advertising medium for future classes and I hope not to be misleading or unfair to the University or the public in any statements. Judging from the small percent of the farming population that statistics show as being enrolled or ever having been enrolled as agricultural students in any college or university, I am led to the conclusion that should this article find its way to the STUDENT's columns it will be read, largely, either by a critic's eye or by an eye that is still drowsy over the long nap that agriculture has only of recent years awakened from.

Let us divide our population into three classes:

*I. A Progressive Class* that is ever ready to accept and advance any new idea they believe to be for the elevation of mankind and ready to discard and forget all ideas that do not help to elevate.

*II. Kickers or Grumblers*, who may be very useful serving as checkreins for No. 1, as they spend their time in keeping sharpshod and following the trade indicated by their name.

*III. Drifters or Floaters*, a far too large a class, who are satisfied to follow the current, too well satisfied to observe

the causes that change its course and too sleepy to inquire as to its destination.

Class No. 1 needs no extra influencing to become enlisted into action. You cannot convince No. 2 but what they are just where they belong, whether in or out of work; if you want them in they'll stay out; if you try to keep them out they may come in and kick you out—so just leave them alone. But to No. 3 we must look for recruits and it is to them this article is pleading.

I think I am safe in saying that in the majority of communities scientific farming is not practiced. By scientific farming I do not mean a technical, cranky, text-book rule system of farming, but a thoughtful, sensible, practical knowledge of the elements of the soil—the nature, need and requirements of plant and animal life, and the manipulation of a system of producing and marketing our products in an intelligent way, producing somewhere near what our surroundings are capable of yielding.

There are places where if a practical four-year graduate endeavored to follow his convictions he would be hooted at—not because he would necessarily be wrong, but because there are communities not yet awakened to the proceedings of an up-to-date farmer and it would shock them.

In many respects it would be hard to claim too much for the excellent start Ohio State University made in its first effort at a ten weeks agricultural course. It exceeded the expectations of the faculty and more than pleased and satisfied

its patrons. Bulletins and papers have already given its objects and outlined its work, but I wish to speak a word as to its achievements. This I shall try and do under two headings.

*I. Acquired Knowledge.* I mention this first, not as the greatest benefit of the course, but because I believe it about the first thing the public will ask for and have a right to know. While the course is composed almost wholly of useful, practical knowledge and while I received passing grades in the five studies pursued and merit grades in two, still I do not regard my acquired knowledge a very great factor in comparison to the total benefit received, for the simple reason that the course is not planned upon the district school idea of mastering each day's work, but rather to meet the needs and requirements of the farming public. For instance the branch of "Breeding and Feeding Live Stock," or "Soil Fertility," or "Farm Crops," etc., consists not in trying to master those subjects in ten weeks, but in a practical, systematic, outlined course of lectures, with one or more text-books as guide, by men chosen from the University faculty and who have made a life study of that branch. These lectures embrace the various steps and stages of that subject from its origin to the present time with laboratory work and recommended bulletins and text-books galore for supplementary reading.

This explanation shows how impossible it is to master very much of it in ten weeks and how little there is of it that you don't get enough of to make you feel like you wanted more, and that brings me to my next heading and in which I feel the great use and weight of the ten weeks course rests, the desire to want to know more about our business or to do it better or its awakening property.

*II. Awakening Property.* This is, I think what the worthy dean, Prof. Price, meant in his first lecture when he said he "expected us to get a little education, considerable information and a whole lot of inspiration." I feel it is this awakening property or inspiration that the drifting farmer needs and in this I pronounce the ten weeks course unique. I would not cast any reflection upon the farming class, nor say that we need educating before we are worth anything; the fact that we are only a little over one-third the entire population—are not only "feeding the nation" but producing such enormous wealth—nearly \$6,500,000,000 in 1907—and this, too, after dividing up with the millionaire with his unjust corporations, that depend upon us for their Wall street investment—proves that we can justly claim to belong to the true nobility of the soil. But the Bible commends us for using our talents to the best advantage possible and no matter how great or how small we may be, our next step should be to try and advance and promote ourselves and those around us.

The fact that we are so great a factor in the nation behooves us the more of our great responsibility and of the necessity of preparing ourselves for our work.

This ten weeks course is arranged for us farmers who are or expect to be actually employed in the business and who find it impossible to leave for any length of time to pursue a longer course, but who feel the need and desire of understanding our business better and for ten weeks in the winter season when we can best spare the time we are given the best of environments and equipments for elevating ourselves to a higher level of our chosen profession. We daily meet news facts, friends and faces, come in touch with the leaders and writers of different branches of agriculture and therefrom

glean much of inestimable value that may be woven into our daily duties on our farms with our crops and live stock, and are so made acquainted with the facilities of acquiring knowledge that if we will we can quite systematically be following a scientific course in agriculture right upon our home farm which I believe to be the best laboratory in existence for the intelligent American farmer.

Let us recognize the grand work our University is doing for the agricultural interests of the state in the four and two-

year courses and encourage their attendance, thereby furnishing us with intelligent men in the leading positions of our calling. But we who have passed that point in life that seems to deprive us of the advantages of these courses, let us accept one designed for our conditions and glean from it those seeds of truth which properly nourished will yield a harvest that will enable us to be intelligent followers of those who stand the highest in our chosen profession.

Pataskala, Ohio, R. D. 4.



The Farm House.

## WHO SHOULD ATTEND THE WINTER COURSE?

*R. E. Bunger.*

The season of the year is at hand when the ambitious farmer (young or old), who has not had the advantage of a college training, should consider the advisability of attending the short winter course in agriculture given at the universities. Let such not think they are too old or too busy to go.

The ages of the students in the winter course in 1907 demonstrated the fact that simply because one is beyond the usual school age that no benefit can be received. Do not think the time is too short to be of any real benefit in the every-day work on the farm, for here the

farmer has an opportunity to be enlightened on some of the questions that have come to him in his farm work. And each one is better equipped not only with a little more exact knowledge, but also with the knowledge of where to refer for aid in the solution of questions that may and will confront him when he gets back to the farm. The average man or boy from the farm, while attending such a course and coming in contact socially with others from sections over the entire state and in other ways learning to know many of Ohio's foremost agriculturists, cannot help but have a broadened con-



ception of the value and dignity of agriculture. This is education of itself. No better testimonial as to the value of the winter course can be given than when the Winter Course Association held its first annual reunion at the Ohio State Fair. There almost half of the class met to re-

new the ties of friendship that were formed last winter. Surely Ohio is dearer to the men than ever before. And if this be true will not their influence make Ohio a better and a greater state.

Lewisburg, Ohio.

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## PRESENT RANGE CONDITIONS REGARDING THE SHEEP INDUSTRY

*Geo. M. Wilbur.*

The past three years have been rosy ones for the sheep owners of the west. Each year has seen a steady advance in price of their "wollies" and the wool market on the whole has been a steady one with market conditions unusually in favor of the sellers.

Several things have contributed to these conditions, among which has been the general prosperity all over the country which has caused heavy demand for mutton and woollen goods, together with the fact that the east has been a heavy buyer of ewes to increase their depleted flocks as well as for feeding purposes, but the greatest reason for the phenomenal increase of prices is the fact that the cattlemen, who had been doing business under exactly similar conditions as the sheep men, i. e., owning a "water-hole" and thereby grazing all the free government range in the vicinity, became a buyer for sheep, the reason being that the sheep men were all waxing fat in riches produced from their lucrative business while the cattle men were at a standstill or "gone broke" as many of them did. Cattle men have for the past three or four years been liquidating their outfits and more rapidly cleaning up during the last year or two and stocking their territory with sheep instead. This

has been a bitter pill for the cattle man as he has previously had about as much respect for a "sheep wrangler" as he has had for a rattle snake, but in his desperation has been compelled to take up sheep or be forced out of business entirely.

The consequence has been that the cattle man has become a competitor with the eastern speculator and being able to pay more every time than an eastern shipper, for even at a high price he would still have plenty of margin by keeping them a year, which in reality costs very little and a good big band of ewes would make money at almost any figure asked by the owner. The high price of sheep stuff has kept nearly all the young ewes and practically all the ewe lambs on the range.

I know of one band of ewes selling on the range in Southern Wyoming at \$8.25 per head just before being shorn and before dropping lambs. This is, so far as I know, a record price; have seen many bands of just as good ewes sell at \$3.00, \$3.50 and \$4.00. Feeding lambs which went over the scales at Chicago last season at \$6.50-6.60, heretofore an unheard of price, were purchased this fall at from \$7.00 to \$7.30 and taken to feed lots. The price had risen until it became top heavy and down it came

when money tightened up. Several feeders who had taken stuff out of Chicago at 7 cents or more early in fall recently came back and had to sell out at around \$6.50, after a month or more of feeding. An equal quality of feeding lambs can now be bought at less than 6 cents, a drop of much over a dollar per head.

I have little respect for the judgment of any individual who would be willing to risk 7 cents and over for feeding lambs in the face of the high price of

feed, both corn and roughage, which was evident at the time such stock was bought.

Sheep will, as usual, continue to be the most profitable of all live stock to handle if properly taken care of and the prices at present will react more or less and finally land at what will be a good profit maker and at the same time compare reasonably well with the values of other kinds of live stock.

Marysville, Ohio.

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## TAKING THE WINTER COURSE

*H. E. Tweed.*

The stranger arriving in Columbus is at once impressed with the immense union depot, said to be one of the finest in the United States. Here is found every modern convenience to contribute to the comfort of the weary traveler. The immense train shed, elaborate waiting room and the various other appointments, all well arranged and modern, impress one that if Columbus as a city is in keeping with its depot it must indeed be a nice place in which to be. Merging on High street, the visitor soon finds himself in the midst of the most interesting city in Ohio. Broad, well kept streets, neat, modern buildings, an excellent street car service, mail facilities unexcelled, etc., all contributing to the comfort and interest of the visitor. The prospective student now looks up a boarding place, and it is certainly his fault if he does not find a good one. It is largely a city of hotels and boarding houses, and whether one locates in the heart of the city or the neighborhood of the University, he need not experience any difficulty in finding excellent accommodations and at a price entirely reasonable. Many of the houses are heated and lighted with natural gas,

which is probably the most desirable of all heating methods.

Having located, the prospective student now hies away to the University. If by car, he takes either the High street or Neil avenue line and soon finds himself on the campus amidst imposing buildings, beautiful walks and what he can see must have been beautiful shrubbery and velvety sward before the approach of winter. After quite a walk along these conditions, he finds himself at Townshend Hall, which is the home of the Agricultural College of the University. While not the largest this is perhaps the most artistic of the entire number of buildings. To the agricultural student it is indeed a structure of which to be proud. Viewed from the outside its massive walls, graceful roof, stately entrance, etc., blend together to have an especially impressive effect upon him who enters for the first time. Passing inside he finds congenial conditions pervading all parts and he can see at once that ample provision has been made for his welfare.

It is registration day and those who are going to take the course may be

found waiting their turn. The applicant now sees for the first time some of the men who are to be his instructors during the weeks to follow. If he has pictured them as haughty fellows, filled with vain glory and bearing a know-it-all attitude, or if he has expected to see men with an over-supply of fancied dignity, he will now surely change his opinion, for he finds just good, sensible gentlemen, full of sympathy and ever ready to do all in their power to make the student feel at home in his new location. It is not long now until he has registered and he may from now on consider himself a real student. After some general remarks by the dean relative to the work, he is dismissed and told that active work will begin next day.

Returning before the appointed time the student may now familiarize himself with the well equipped class rooms, laboratories, hallways, etc., in which he is to spend the time during the term. All these he finds well kept and conveniently arranged, the walls containing many valuable paintings, charts, etc. He also finds a large reading room in which is found the current issues of most of the agricultural publications of the United States. Here he may spend to great advantage any spare time that is at his disposal. But

he soon finds himself in a class room where active instruction begins. Some days seven hours are spent in the various recitations, and no day is any time wasted. This does not include the daily four o'clock lecture which is one of the most valuable features of the course. Competent men are found in all departments, and the student can now see that it will be his own fault if he does not at the end of the term carry away a great deal of valuable information. Each instructor, a specialist in his line, is prepared to impart all that is best in his field of investigation. Day after day well arranged lectures, laboratory work, class quizzes, examinations, etc., profitably occupy the time. At intervals during the term the students are taken to nearby stock farms and stables, including those of the University, that they may study the various live stock to best advantage.

By this time the student is acquainted with many of his classmates, and it is now apparent that the association of these is going to be an interesting feature of the term. All being from the same walks of life and interested in the same subjects, it is not strange that not alone during social hours but in the class room as well the exchange of ideas is often beneficial and interesting. In fact many



Winter Scene on the Campus.



sessions partake more of the nature of a convention than of a formal recitation. Foremost, however, among the social functions we have the weekly literary meetings. These consist of regularly prepared programs containing many instructive, amusing and generally entertaining features contributed by members of the course. The class banquet at the close of last term was an especially pleasant event, being the only high-wrought social event of the entire time. Here practically the whole class, together with the faculty and their ladies, spent the evening together enjoying excellent refreshments, well rendered music, appropriate speeches, etc.

The term being over it is now time to say farewell, much to the regret of all. Ten weeks of such pleasant association is not without the formation of many pleasant ties that must now be broken, possibly forever. At such a time there is much sadness, but shining through the same we have the reasonable assurance of many pleasant reunions and we part feeling a kindly interest in each other at all times. Returning to our homes we more than at any time before realize the many benefits that will come from our college experience, for we may now begin to plan to make a practical application of that which has been learned.

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## VALUE OF THE WINTER COURSE IN AGRICULTURE

*C. M. Triplett.*

As one of last winter's short-course men, I believe that I realize something of the value of this course.

For the time and money it costs, I know of nothing better for the young or middle aged man engaged in farming than the ten weeks course in agriculture, because it enables one to get in touch with the latest methods and discoveries in agriculture. There is something good for each student, no matter in which branch of agriculture he is most interested, for the instructors are earnest and capable along their different lines. Last year instruction was given in eight subjects, the student being allowed to choose not to exceed five of them for his work. This year two new subjects have been added which gives still greater choice. The subjects I selected were all helpful to me, especially soil fertility, farm management and breeds of live stock and stock judging for in the last subject mentioned one has a good chance to become acquainted with the different breeds of

horses, cattle, sheep and hogs and learns by having the different types of each breed before him how to judge their quality and value.

Aside from the work in the class room and laboratory, the social part is of no small value, for coming from all parts of the state, as the students do, the getting acquainted and exchange of experience is valuable, as one cannot spend a term there without having on leaving a better idea of the products and diversity of interests in Ohio.

Last, but not least, are the special lectures given at 4 o'clock each day by men who are specialists in their line of work. These lectures alone are worth a large share of the cost of taking the course.

I hope to see a large number take the work this winter for I believe this work means much for the upbuilding of agriculture in our great state. Those who take the course will on leaving, I think, join me in saying it is good to have been here.



In the Dairy Laboratory.

## THE CONCRETE FENCE POST

*By H. E. Allen.*

It is only recently that attention has been directed to the use of cement for the construction of the smaller articles in use about the farm. This interest has been aroused by the growing scarcity, and consequent high prices of timber,—prices so high as to make its use almost prohibitive for some purposes, when the short time it lasts is considered. The fact that experiment station directors and editors of farm journals are receiving so many inquiries in regard to the use of cement, indicates the fact that farmers are hoping to substitute cement for some of the purposes for which wood is now used. They hope thus to get an article which, while not costing much or

any more, will prove more lasting, and in other ways more satisfactory.

Just at present the use of cement for fence posts is receiving the most attention, for suitable timber for posts is higher priced and scarcer than for almost any other purpose. A fence to be durable must have good posts, and the number of woods which last well in the ground is very small; therefore the scarcity and high price. Iron or steel for posts has not proven satisfactory for, besides being expensive when made large and heavy enough to stand the strain, they are open to the same objection as are posts of wood—the part in the earth rusts quickly and becomes so weakened as to easily break.

Concrete for posts has been widely ex-

perimented with, both as a base in which to imbed an iron post and as a substance to make the entire post of. The use of cement as a base for an iron post has proven fairly satisfactory, but not so satisfactory as a post made of cement, and reinforced by iron pipes or rods, and the use of the latter is becoming more and more general.

The concrete post made in this way has many good qualities to recommend it, and its use in the future is sure to be wide. The life of the post is unlimited for it can never rot, and if properly made will not crack, crumble or break. Thus it is a cheap post even if the initial cost be double that of wood, for besides its lasting qualities the fact that the fence will need less repairing is a decided advantage. They present a better appearance because of their uniform size and height. Another factor in their favor is that the farmer can manufacture his own posts, thus materially reducing the cost. Either a patent mould may be bought and used for the purpose, or a mould can easily be made by the farmer himself.

In making the post the mould should be placed flat on the floor, and in a place where it will not be necessary to move it for at least ten days. If moved before this length of time the post is very liable to crack in some part because the cement is not completely "set." The form is filled with the cement, and as it is being filled the reinforcements are put in, and provision made for fastening the fence to the post. There are many ways of doing this, but perhaps the most satisfactory is to lay one-half inch steel rods crosswise of the mould, so that upon being removed, a hole through the post will be left. These rods must be greased and should be driven out in about four days before the cement becomes too hard. There are other ways of fastening the fence which are good and many appeal

to the maker more than this way. However, the use of a wood strip is not advisable.

After the posts are removed from the mould they may be given a smooth finish, by making a thick paste of pure cement and applying to the posts with a stiff brush. This finish adds to the appearance but is not necessary. The posts after being removed from the mould, must be kept moist for three or four weeks, by being sprinkled daily. Then they are ready for use.

The composition of the concrete varies somewhat with the nature of sand and gravel used. However, the following are about the right proportions: One part portland cement, two and one-half parts clean sharp sand, and five parts broken stone. This should be thoroughly mixed by shoveling over several times and then water added until the mass is of the consistency of damp soil.

The size of the posts is usually about six inches square at the bottom or six inches in diameter if round, and three and one-half inches at the top. The length is usually about six and one-half to seven feet. Corner posts are, of course, made much larger and longer.

The most important part of the construction, or at least one of the most important, is their reinforcement. Wires have been most frequently used in the past and often the failure of the post to prove satisfactory has been due to the use of too small wires. If wires are used they should be good sized and well twisted so as to give all the support possible. At least four reinforcements for each post are necessary if wire is used. If it is possible to get iron rods or second-hand gas pipe much better posts can be made, which will stand a greater strain. Almost the ideal reinforcement is a two-inch gas pipe in the center of the post.



### Facts in Regard to the Winter Course.

The ten weeks course in agriculture that was given at the Ohio State University last winter and which proved so popular with the farmers of the state, is to be given again this winter. In addition to the subjects that were given last year, two others will be offered—one in farm poultry and one in veterinary medicine. This makes a total of ten subjects offered in the course and a student is allowed to take any five of them. The addition of the two new subjects will also enable the students that took the course last winter to return again and get practically all new work.

This course will open this year on the sixth of January and will close on the thirteenth of March and thus takes the young farmer away from home when he can best be spared. The estimated expense of a student taking the course is \$65.00 and many did it for less last winter. At the present high price of labor, it does not take very long to earn this amount; and with the present development of better methods in agriculture, it does not take very long to lose \$65.00 in farming; and a young farmer will not have to learn very much to save him \$65.00 in his life's work. The farmer does not hesitate to spend \$75.00 or \$100.00 for a new machine on the farm when he is convinced that it will pay for itself in returns. The brain is the best machine the farmer has and \$75.00 spent in training it so as to make it more efficient is one of the best investments that can be made.

Last winter, which was the first time that the course had been offered, one hundred and thirty-six students enrolled, representing over sixty counties of the state. Already a large number have written to the college that they expect

to attend this coming winter and the prospects are for a much larger attendance than last year.

### Special Lecturers for the Winter Course in Agriculture.

One of the attractive features of the winter course in agriculture has been the four o'clock lectures that have been held each day. These lectures have been chiefly given by men outside of the University and men who are prominent in some particular line of agricultural work. This year the following men have been secured and they will give from one to five lectures each:

Charles E. Thorne, Wooster, Ohio, director of the Ohio Agricultural Experiment Station.

Joseph E. Wing, Mechanicsburg, Ohio, associate editor of the *Breeders' Gazette*.

C. G. Williams, Wooster, Ohio, agriculturalist of the Ohio Agricultural Experiment Station.

W. I. Chamberlain, Hudson, Ohio, associate editor of the *Ohio Farmer*.

E. R. Root, Medina, Ohio, editor of *Gleanings in Bee Culture*.

John Gould, Aurora Station, Ohio, corresponding editor of *Hoard's Dairyman*.

L. P. Bailey, Tacoma, Ohio, president of the Ohio State Board of Agriculture.

T. B. Terry, Hudson, Ohio, corresponding editor of the *Practical Farmer*.

W. W. Farnsworth, Waterville, Ohio, secretary of the Ohio Horticultural Society.

E. S. Bayard, Pittsburg, Pa., editor of the *National Stockman and Farmer*.

J. Warren Smith, Columbus, Ohio, section director of the United States Weather Bureau.

C. B. Galbraith, Columbus, Ohio, librarian of the Ohio State Library.

R. W. Dunlay, Kingston, Ohio, Dairy and Food Commission of Ohio.

T. L. Calvert, Columbus, Ohio, secretary of the Ohio State Board of Agriculture.

All of the above men have a national reputation and the opportunity that is offered to the students to hear them throughout the winter is worth all the entire course will cost.

### Our Greatest Resource.

In his address at the dedication of the new agricultural buildings at Pennsylvania State College last week, Dean Thomas F. Hunt said:

"The dedication of these buildings signifies not only the development but the conservation of the state's resources. In urging the necessity of conserving the country's natural resources, President Roosevelt recently said: 'No other question of equal gravity is now before the nation.' No state has greater or more varied natural resources than Pennsylvania. Its coal, its oil and gas, its ores, its forests and its water are priceless heritages whose waste a statesmanship will strive to prevent. All these resources are important and to the conservation

and development of all of them the Pennsylvania State College stands committed. None are more important than its soil, its forests and its water, whose conservation and wise management the School of Agriculture and Experiment Station will aid in promoting."

Every word of this is true; and it is true furthermore that the soil is the most valuable asset this or any other state possesses. No matter how great its mineral or forest wealth may be the soil overshadows all other resources of the commonwealth. Its productiveness is the base on which not only agricultural prosperity but national prosperity rests. Contrast productive France on one side of the Mediterranean and the desert on the other—a difference of soil—and a difference that has arisen within the range of history. Contrast some of the abused lands of the East with new lands alongside of them or elsewhere—a difference that has arisen within the memory of man. If all men could be made to realize the importance of conserving this great asset more wealth would be added to our country in a generation than all the mines of the earth could produce in the same time.—National Stockman and Farmer.



Students Judging Sheep.

# THE AGRICULTURAL STUDENT

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J. O. WILLIAMS ..... Business Manager

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R. C. Collison	C. E. Snyder
M. D. Moore	H. E. Allen
R. M. Wilber	A. H. McCray

## DECEMBER

### EDITORIAL.

The publishers believe that in devoting this issue of *THE STUDENT* largely to the interests of the winter course, they are making the paper serve a good purpose. We know that the ten weeks course is a good thing for a farmer be he young or old for, as one of our contributors says, "It does nothing else but inspire the farmer to do better work and to become more of a student of his own farm conditions, and of agricultural conditions in general, the time will have been profitably spent." Something to awake the farmer up to the possibilities of his profession, and encourage him to keep in close touch with the newest and best in that profession is what is needed and there is nothing better than the winter course to do this.

Many extra copies of *THE STUDENT* are being sent out this month in the hope that the testimonials of those who were here last year and of other prominent men, may induce some to come who would not otherwise do so. Also we hope that these sample copies may be liked so well that many may decide to become regular subscribers. *THE STUDENT* aims to represent all departments of our college and to keep its friends in touch

with college affairs. In this connection we may say that we are preparing to give the winter course men and their interests a place in our magazine.

### The New Barns.

As the new barns approach completion, we can't help but make some remarks again about these magnificent new additions to our college. One can't appreciate how complete in every detail they are until he has been through them, for while they present a pleasing exterior view, the inside arrangement is almost perfect; no waste of room, yet not crowded, everything arranged for facilitating rapid work, and withal so substantial looking. However, they will soon be done and you can see yourselves that no extraordinary claims have been made. Prof. Plumb says he expects them to be finished by January 1.

### Graduates of the Agricultural College of the Ohio State University in Demand at Cornell University.

The fact that five of the recent graduates of the College of Agriculture in the Ohio State University have lately been appointed to responsible positions in the Cornell College of Agriculture speaks well for the reputation of the Ohio College.

The five appointments that have been made are Elmer O. Fippin, of the class of 1900 as assistant professor in Agronomy in charge of the work in soils; Merritt F. Harper, of the class of 1901, as assistant in Animal Husbandry; Edward R. Minns, of the class of 1905, as assistant professor of Farm Practice and assistant manager of the university farm; George A. Crabb, of the class of 1907, as Assistant in Soils; and Edward J. Petry, of the class of 1907, as Assistant in Botany.



### Organization News.

#### TOWNSHEND.

At the last meeting of Townshend it was decided to have no more meetings this term on account of the Glee Club concert coming on the date of the next regular meeting. The first program in the winter term will be given entirely by the ladies of the society. Townshend is booming this year. Wonder how we can account for such remarkable enthusiasm.

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#### HORTICULTURE AND FORESTRY CLUB.

At the last meeting for this term Prof. V. H. Davis gave an exceedingly interesting talk on his trip to England. While this was a wedding journey, yet Prof. Davis had a little time to make a few observations in regard to horticultural conditions. These meetings are always pleasant and profitable and any one interested in gardening, fruit growing, etc., should make it a point to attend.

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The Animal Husbandry Department recently sold the Jersey herd bull of the University known as King's University Lad 65,075, to Mr. J. M. Burgess, of Clemson College, North Carolina. King's University Lad is a very high class individual and one which will do a lot of good for his new owners.

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The University was represented at the 1907 International by more than thirty entries, mostly of fat stock, including the following:

Cattle—Fat Shorthorns, 8; fat Aberdeen Angus, 2; fat Galloway, 3; fat Red Polled, 1; grade, 1.

Hogs—Berkshires, 8; Poland China, 2; Yorkshire, 3; Hampshire, 1; grade, 1.

Sheep—Fat Shropshires, 2; fat Cotswold, 1; fat Southdown, 1; grades, 2.

Horses—Clydesdale, 1.

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#### Vet.—Ag. Football.

The annual football game between the Ags and Vets resulted in a tie, neither side scoring, much to the chagrin of the latter who expected to run up a big score. Although the Vets had the advantage in weight the Ags outplayed them. The ball was kept in the Vets territory most of the time. Twice the Ags advanced the ball inside the five-yard line only to lose it on downs. Zimmer and Jollie starred for the Vets, while all the Ags played an exceptionally good game. Bachman refereed the game to the satisfaction of both teams.

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#### Alumni News.

Mr. C. Lewis Miner, '06, is assistant manager of a large plantation at Tegonapa Station, V. C. & P. R. R., Hacienda El Palmar, Vera Cruz, Mexico.

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C. C. Poindexter, a graduate of Ohio State University, and more recently private secretary to Prof. T. F. Hunt, at Cornell University, has been appointed director of the Department of Agriculture of the American Church Institute for Negroes. He will endeavor to introduce the study of agriculture into the St. Paul Normal and Industrial School, Lawrenceville, Va., and into St. Augustine School, Raleigh, N. C., and will also give lectures on agricultural economics and rural sociology to the students in the Bishop Payne Divinity School, Petersburg, Va.

# STUDENT DAYS

Are just the time to investigate the merits of advanced farm machinery.

You know the kind now being used at home can be improved upon!

Your college experience will teach you the great advantages of improved dairying machinery and above all the merits of the cream separator.

## Your Opinion

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It is the machine that you will want on your farm.



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NOTE. We are continually looking for capable young men to sell our machines in that territory. You can earn your way by selling our separators. Just write us now if you are interested.

## A GOOD CLEANING POWDER

It is rare indeed that any article now-a-days is of such extraordinary value as to receive the public endorsement of all the Dairy Schools and to be used by them to the exclusion of all other articles made for similar purposes.

Yet these are facts regarding

### WYANDOTTE DAIRYMEN'S CLEANER AND CLEANSER

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THE AGRICULTURAL STUDENT.

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PUBLISHED BY JOHN CLAY

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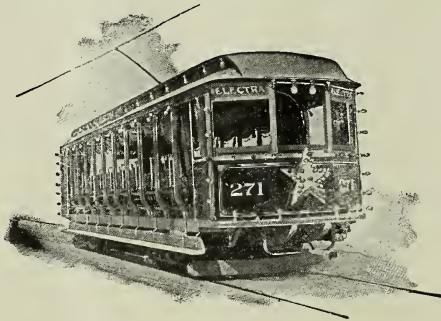
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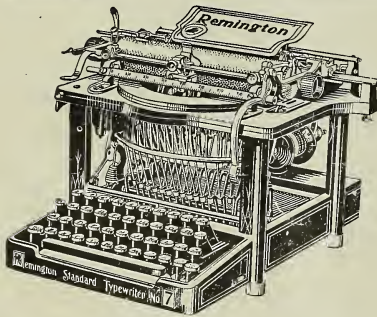
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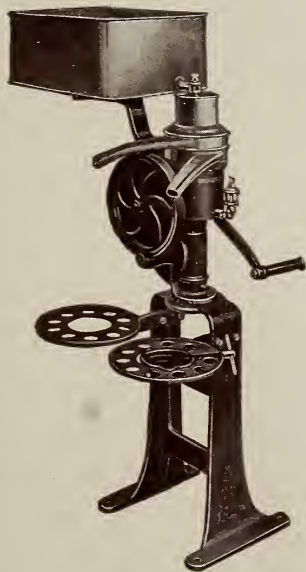
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# DE LAVAL SEPARATOR BUTTER

## MAKES CLEAN SWEEP

### AT THE GREAT CHICAGO DAIRY SHOW

### AND 1907 STATE FAIRS.

In keeping with the triumphant record of fifteen years, butter exhibits made from DE LAVAL SEPARATOR CREAM made a clean sweep of all high scores at the big NATIONAL DAIRY SHOW in Chicago the past week.

First Prize went to A. Lindblad, North Branch, Minn., with a score of 97½.

Second Prize went to A. Schroeder, Adams, Minn., with a score of 97.

Third Prize went to Herman C. Raven, Bloomer, Wis., with a score of 96½.

94½% of all the entries were De Laval made, showing the overwhelming use of De Laval machines by well informed buttermakers everywhere, while the average score of all the De Laval made entries was 92 against an average score of 89 for all the other entries, proving again the unquestionable superiority of De Laval separated cream in good buttermaking.

Then, as usual, DE LAVAL BUTTER HAS MADE A CLEAN SWEEP OF ALL FIRST PRIZES AND HIGHEST HONORS AT THE 1907 STATE FAIRS, reports to date giving chief winners and best scores as follows:

WISCONSIN,	O. R. McCormick, Bancroft.....	Score 98
MINNESOTA,	M. Sondergaard, Hutchinson.....	" 97
IOWA,	L. C. Peterson, Story City.....	" 97½
KANSAS,	Mrs. W. H. Coberly, Hutchinson....	" 97½
ILLINOIS,	W. J. Kane, Morrison.....	" 96½
INDIANA,	T. C. Halpin, Trafalgar.....	" 96
OHIO,	W. J. Bangham, Wilmington.....	" 97
MICHIGAN,	Walter Hall, Parma.....	" 97
SIOUX CITY,	L. P. Holgerson, Troy Center, Wis..	" 97½
SOUTH DAKOTA,	A. H. Wilcox, Bloomer, Wis.....	" 95
KANSAS CITY, MO.,	Ike Oswolt, Topeka, Kans.....	" 97
COLORADO,	Mr. Parfeit, Golden.....	score not reported.

At the 1907 Tennessee State Fair a big buttermaking contest limited to Tennessee women was held in the presence of 5,000 people, and Miss Kate Gleaves, who won the First Prize of \$50, made her butter from De Laval cream.

And so it goes: FROM YEAR TO YEAR DE LAVAL USERS INVARIABLY WIN ALL HIGHEST HONORS IN EVERY IMPORTANT BUTTER COMPETITION. All Highest Awards in every contest of the National Buttermakers' Association since 1892 have been won by users of De Laval machines. The butter receiving the highest score at the World's Exposition in Paris in 1901 was De Laval made; as was also the Grand Prize butter of the St. Louis World's Fair in 1904.

A De Laval catalog, to be had for the asking, will help to make plain why De Laval cream enables superior buttermaking. You merely have to write for it.

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